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KADER MENTARI Synergy: Empowering Posyandu Cadres for Early Detection of Perinatal Depression in the Wagir Primary Healthcare Center Area

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ABSTRACT
The new Primary Healthcare Integration (ILP) emphasize the need for comprehensive care, including mental health monitoring for pregnant women (Cluster 2). Despite this, current services at Integrated Healthcare Centers (*Posyandu*) in Wagir Primary Healthcare Center (*Puskesmas Wagir*) remain heavily physical-centric, leaving cadres inadequately prepared to detect psychosocial issues. This community program aimed to evaluate the effect of interventions in improving the mental health literacy and Edinburgh Postnatal Depression Scale (EPDS) screening competencies of the cadres. These communities program using a Participatory Action Research (PAR) approach, with the program was carried out in three stages: (1) Preparation, which involved initial mapping and the development of the KADER MENTARI Training Module; (2) Intervention, comprising a facilitated training focused on empathetic EPDS interviewing techniques, score calculation, and crisis referral management; and (3) Mentoring and Evaluation, which included direct mentoring of cadres at the Posyandu and the assessment of their final competencies. Nineteen cadres participated in the program. Evaluation results revealed a improvement in the cadres' knowledge, with the average pre-test score rising from 72.6 to 81.6 in the post-test (a 9.0-point increase). Furthermore, the competency assessment showed that 78.9% of the cadres achieved a competent passing grade. Consequently, the KADER MENTARI Synergy program effectively enhanced both the cognitive and psychomotor capacities of the cadres, better preparing them to serve as the frontline of maternal mental health care in their communities.

Keywords **:** Perinatal Depression, Posyandu Cadre,Mental Health, EPDS Screening, Primary Health Center

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INTRODUCTION
The Wagir Primary Healthcare Center (*Puskesmas Wagir*) is currently undergoing a comprehensive transformation of its basic health services. The Indonesian government has mandated the implementation of Primary Healthcare Integration (ILP) (Ministry of Health of the Republic of Indonesia, 2023). This national policy restructures primary care governance across primary health centers and Integrated Healthcare Centers (*Posyandu*) using a life-cycle approach (Ministry of Health of the Republic Indonesia, 2023). One of the main priorities in

this restructuring is the Cluster 2 services, which specifically target maternal and child health (WHO, 2022a). While Posyandu cadres serve as essential frontline health agents, preliminary observations in the Puskesmas Wagir area reveal a gap between the new ILP regulatory standards and the cadres' actual operational capacities (Setiaasih et al, 2025).. Our initial mapping showed that the cadres lacked basic knowledge regarding maternal psychosocial red flags and had never been trained in utilizing standardized psychological screening instruments. Currently, maternal care in these community posts is predominantly physical-centric, focusing on weight measurement, mid-upper arm circumference (MUAC), and basic documentation in the Maternal and Child Health (KIA) book (Meo et al, 2024). The mental and psychosocial monitoring mandated by the ILP technical guidelines is rarely implemented (Wasir et al, 2025).

Perinatal depression is a serious condition that can affect mothers from pregnancy through the postpartum period (ACOG, 2026b; NIMH, 2023). Expectant mothers are highly susceptible to both biological and psychological stressors, often stemming from role transition anxiety, fear of childbirth, or socio-economic pressures (Al et al., 2023). If left unaddressed, persistent maternal emotional distress can lead to severe clinical complications, such as preeclampsia and preterm birth (Grigoriadis et al, 2013). Moreover, it significantly increases the risk of childhood stunting due to delayed breastfeeding initiation and poor mother-infant bonding (ACOG, 2026a; Falek et al., 2022).

Unfortunately, due to limited mental health literacy, cadres often dismiss drastic emotional changes in pregnant women as normal physiological adaptations (Waqas et al., 2022). Futhermore, while standardized psychological like EPDS exist, their use has not yet been integrated into routine *Posyandu practices, nor are the cadres adequately trained in* therapeutic communication skills (Wardoyo et al, 2023). Consequently, without a structured community-level early detection system, primary healthcare centers often receive referrals at a later stage, typically when a mother's condition has already progressedto a more severe clinical depression (Wardoyo et al, 2024). State that requires complex clinical interventions.

While previous community activities in Indonesia have predominantly focused on the physical aspects of maternal care, such us nutrition and stunting prevention, structured mental health training for cadres remains scarce. To address spesific gap, this community service team initiated the "KADER MENTARI Synergy" program (an acronym *for Kader Mental Tangguh Masa Kehamilan di Layanan Kesehatan Primer*/ Mentally Resilient during Pregnancy in Primary Healthcare). Unlike conventional maternal health trainings, this program has a holistic the integration of early screening Edinburgh Postnatal Depression Scale (EPDS), paired with Interpersonal Communication (KAP) and Psychological First Aid (DPA) training, as well as the formulation of clear referral Standard Operating Procedures (SOPs) (NSW Health, 2019). This initiative directly supports the Sustainable Development Goals (SDGs), particularly Goal 3 (Good Health and Well-being) and Goal 17 (Partnerships for the Goals), while also serving as a practical application of psychosocial nursing science within the community.

METHOD

This community service adopted a Participatory Action Research (PAR) framework. The PAR methodology emphasized active, continuous involvement of the cadres and health practitioners in the cycles of problem identification, planning, action, observation, and reflection.As this initiative constitutes a community empowerment and program was exempted. Nevertheless, strict ethical principles were upheld throughout the intervention. The implementation protocol was officially reviewed and approved by the Institute for Research and Community Service and Innovation (LPPMI) of Tribhuwana Tunggadewi University and the Head of Puskesmas Wagir. Furthermore, all participating cadres were fully informed about

the program's objectives and provided written informed consent prior to their involvement.

The population for this intervention comprised all *Posyandu* cadres operating within the *Puskesmas* Wagir. Using purposive technique, 19 Posyandu cadres operating within the Puskesmas Wagir coverage area were selected as the target sample. The inclusion criteria required participants to be active cadres assigned to maternal and child health (Cluster 2) services and willing to commit to the entire PAR cycle. Cadres who were entirely absent during the initial planning were excluded.The intervention was structured into three continuous phases: Phase I: Preparation and Instrument Alignment in the 1st month (June 2026). During this phase, we coordinated closely with the Head of Puskesmas Wagir, the Coordinating Midwife, and Coordinating Nurses to collaboratively identify field-level constraints in screening maternal mental health. Together, we developed the "KADER MENTARI Module" and also a pocket module version, which provides step-by-step instructions for using the Indonesian version of the EPDS. We also conducted a baseline assessment via a pre-test. Phase II: Intervention and Clinical Skills Transfer in the 2nd Month. The core training took place on July 24, 2026, structured as a one-day Workshop emphasizing experiential learning. The sessions included: Psychoeducation: Educating cadres on how to recognize the red flags of psychosocial distress during pregnancy. Technical EPDS Training: Simulating structured interviews and teaching cadres how to calculate and interpret scores (Normal, Mild Risk, or High Risk).

Communication Roleplay: Practicing Psychological First Aid (PFA) so cadres could respond empathetically, without judgment, and avoid giving toxic positivity. Phase III: Community Implementation and Mentoring in the 3rd month (August 2026). Cadres applied their new skills in real-world settings by screening pregnant women during integrated Posyandu days and home visits. Cadres actively shared their practical challenges and experiences, which were directly utilized to formulate and finalize the Standard Operating Procedure (SOP) for psychosocial referrals. *Puskesmas* Wagir provided direct shadowing to ensure the screening process did not unintentionally trigger anxiety in the mothers.

We evaluated the program's success by measuring the cadres' cognitive improvements (pre-test vs. post-test scores) and assessing their psychomotor skills during the role-play simulations.

Cognitive measurement was assessed using a structured multiple-choice questionnaire administered as a pre-test and post-test, focusing on maternal mental health literacy and EPDS mechanics. Psychomotor measurement was evaluated during the Phase II role-play sessions using a standardized observational rubric. The rubric assessed four key skill indicators: empathetic engagement, accurate EPDS score calculation, application of Psychological First Aid (PFA), and correct referral decision-making.

The final scores were classified into three predefined competency categories: Competent (scores of 80 to 100), Needs Reinforcement (scores of 60 to 79), and Needs Retraining (scores below 60). The collected data were analyzed using descriptive statistics. Cognitive improvements were expressed by comparing the mean scores of the pre-test and post-test, while the psychomotor competency levels were analyzed using frequency distributions and percentages to map the cadres' readiness accurately.

RESULTS

Implementation and Knowledge Evaluation

The main intervention of the KADER MENTARI Synergy program Phase II was successfully conducted on July 24, 2026. A total of 19 targeted *Posyandu* cadres attended the session and completed the session in its entirety.

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Figure 1. Posyandu cadres practicing the early detection of perinatal depression using the EPDS instrument.

To measure the effectiveness of the psychoeducation and technical training, the cadres' baseline knowledge was compared with their post-training scores. The outcomes of this cognitive evaluation are summarized in Table 1.

Table 1. Average Pre-Test and Post-Test Scores of Cadres

Evaluation Indicator	Result
Number of participants	19 cadres
Average pre-test score	72.6
Average post-test score	81.6
Average score improvement	9.0 points

Based on Table 1, the average score increased by 9.0 points. Furthermore, the post-test results were categorized into three competency levels to gauge the cadres' readiness to conduct independent screenings in their respective communities. The distribution of these competency categories is presented in Table 2.

Table 2. Distribution of Cadre Competency Levels Post-Training

Competency Category	Number of Cadres	Percentage (%)
Competent (Passed)	15	78.9%
Needs Reinforcement	1	5.3%
Needs Retraining	3	15.8%

The evaluation data reveals that a strong majority (78.9%) of the participating cadres achieved the "Competent" level, indicating a solid grasp of the material and screening techniques.

Program Outputs and Referral System

The community service program generated several tangible outputs. The team successfully developed and registered the Intellectual Property Rights (Copyright) for the "KADER MENTARI Guidelines" Module and Pocket Book (Figure 2), which serve as permanent operational manuals for the cadres.

Figure 2. The KADER MENTARI Pocket Book and Training Module.



Additionally, in collaboration with the head of the primary healthcare center and the local mental health nurse coordinator (Perawat Pemegang Program Jiwa), the team formulated and legalized a Standard Operating Procedure (SOP) for Psychosocial Referrals. Under this protocol, cadres use the EPDS cut-off scores to stratify pregnant women into three categories: Normal, Mild Risk, and High Risk (red flag). The established psychosocial referral pathway is illustrated in Figure 3.

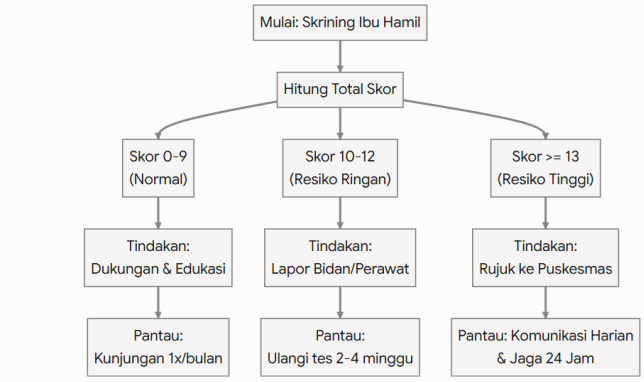


Figure 3. The Referral Pathway Algorithm of the KADER MENTARI Program

This figure presents the legalized Standard Operating Procedure (SOP) algorithm for psychosocial referrals. The pathway stratifies pregnant women into three risk categories based on their total EPDS scores—Normal (0-9), Mild Risk (10-12), and High Risk (13 or above)—with each category dictating a specific follow-up action, ranging from basic psychoeducation to immediate clinical referral.

DISCUSSION

Interpretation of Knowledge and Competency Improvement

The cognitive evaluation demonstrated a noeable improvement in maternal mental health literacy among the cadres, as evidenced by the 9.0-point increase in their average test scores. While this pre-experimental design without a control group limits causal inferences, this positive trend suggests that translating complex medical-psychological concepts into everyday language tailored to local cultural contexts is a promising approach for empowering non-professional groups. (Holcomb et al, 2022).

As defined in the evaluation rubric, the 78.9% of the cadres who achieved the “Competent” level demonstrated the operational ability to accurately calculate EPDS scores and execute basic Psychological First Aid (PFA) during roleplays. While this indicates a high level of simulates readiness to administer the EPDS tool and navigate the appropriate referral pathways (ACOG, 2026c). Ongoing field supervision remains necessary to confirm their independent clinical reliability.These findings align with previous empirical studies in low- and middle-income countries, which demonstrate that lay community health workers can effectively acquire mental health screening capacities when trained using simplified, culturally adapted tools and active experiential learning methods (O'Donovan et al., 2018; Waqas et al., 2022). Such cognitive and psychomotor improvement are key indicator of successful community empowerment (WHO, 2017). This outcome aligns with the World Health Organization's stance that structured education and task-shifting to community health workers significantly boost an individual's readiness to take on frontline health-related roles (WHO, 2022b; WHO, 2026).

Navigating Field Challenges

While the intervention was largely successful, the team encountered several logistical

and educational challenges during the implementation. Although 19 cadres actively participated, five other invited village representatives were unable to attend due to scheduling conflicts. Furthermore, there was a noticeable disparity in the educational backgrounds of the participants, which initially affected how quickly some absorbed the technical material.

To overcome these barriers, the facilitating team dynamically adjusted the training approach (Sukmawati, 2024). By stripping away clinical jargon, utilizing relatable case studies during the roleplays, and providing intensive, hands-on mentoring in smaller groups, the team ensured that cadres from all educational backgrounds could achieve the required competency standards (Setiaasih et al, 2025).

System Integration and Impact of the Standardized SOP

The formalization of the standardized clinical referral pathway (SOP) serves critical system output of this program. Merely screening for perinatal depression is ineffective if it is not followed by appropriate, timely clinical action (O'Connor et al, 2016). The SOP provides a necessary structural framework designed tobridge the gap between community screening and professional clinical care (WHO, 2019; WHO, 2023). It provides clear directives: mothers with Normal or Mild Risk scores receive basic psychoeducation and continuous monitoring by the cadres, whereas those in the High-Risk category with scores above the predetermined cut-off or showing any positive response to suicidal ideation trigger an immediate emergency referral (Tessema, 2024; Levis et al, 2020).

that the SOP is a system output, not a direct clinical outcome. However, this structured referral mechanism lays the groundwork to support a robust continuum of care. Importantly, it provides the cadres with clear, legal boundaries for their actions, ensuring they do not overstep into clinical diagnosis (Ministry of Health of the Republic of Indonesia, 2023). Simultaneously, it aims to assist *Puskesmas* nurses inreceive early, well-documented, and well-documented referrals before a mother's condition deteriorates into severe clinical depression (Hayati, 2026; Moore et al, 2018).

CONCLUSION

The KADER MENTARI Synergy program demonstrated a positive outcome as a community-based intervention for enhancing the capacity of Posyandu cadres in the early detection of perinatal depression. The program successfully improved the cadres' maternal mental health literacy and technical skills, as evidenced by a 9.0-point increase in their average evaluation scores. Furthermore, the post-training psychomotor assessment indicated that 78.9% of the cadres achieved a "competent" readiness level to perform the EPDS screening.

The program also contributed to the local healthcare infrastructure by producing copyrighted operational guidelines (Module and Pocket Book) and establishing a legalized Standard Operating Procedure (SOP) for psychosocial referrals. This SOP provides a much-needed structured framework to guide community-level screening and facilitate appropriate clinical care pathways. Overall, the cadres are now better prepared to assist in identifying vulnerable pregnant women, laying the groundwork for more comprehensive and timely maternal mental health support at the primary healthcare level.

To ensure the long-term sustainability and optimization of this mental health intervention, several follow-up actions are recommended. The *Puskesmas* should facilitate continuous training and provide ongoing, hands-on mentoring for cadres during their actual screening duties. Furthermore, the EPDS screening protocol must be formally integrated into routine Cluster 2 antenatal care services to foster seamless collaboration between midwives, mental health nurses, and cadres. Future psychoeducation efforts should also be expanded to include husbands and extended family members to cultivate a robust domestic social support

system. Finally, systematic monitoring of the referral data generated by the cadres is essential to guarantee a continuous and effective continuum of care for maternal mental health.

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